

# **Formalizing a new approach to economic policy - Bent Hansen, Gösta**

## **Rehn and the Swedish model\***

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### Abstract

In the early postwar years, two trade-union economists, Gösta Rehn and Rudolf Meidner, presented a Swedish alternative to Keynesianism. The so-called Rehn-Meidner model recommends restrictive macroeconomic policies, labor market policy programs and solidarity wages to combine price stability with economic growth, equity and full employment. In the 1950s, Bent Hansen evaluated the effects of the Rehn-Meidner policy and the validity of its underpinning theory. Hansen's rigor analysis shall not conceal that, even together with Rehn, he was unable to shed light on the positive relationship between average profits and labor scarcity in the Rehn-Meidner model or all relations between its policy means.

Key words: Swedish model; Rehn-Meidner model; unemployment; inflation, wage policy of solidarity

JEL Classification: B13, B14, B15, B16, B31, E24, E62

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## 1. Introduction

In a report to the 1951 Congress of *Landsorganisationen* (LO), the central trade union for blue-collar workers in Sweden, Gösta Rehn (1913-1996) and Rudolf Meidner (1914-2005) presented a comprehensive economic and wage policy program for full employment, price stability, growth and equity (LO [1951] 1953). At the time of the report, Meidner was the head of the LO economic research department and Rehn the department's expert on stabilization policy. In the mid-1940s, Rehn had served as a coordinator in the committee that had formulated the Swedish labor movement's postwar program, a radical manifestation of the Keynesian revolution (*Arbetarrörelsens efterkrigsprogram* 1944). The so-called Rehn-Meidner (R-M) model originated from the founders' growing skepticism about the Keynesian economic policy in Sweden in the early postwar period and in general about the possibility of conquering inflation when full employment is obtained by expansionary macroeconomic policy. Rehn and Meidner thought that regulations, including incomes policy, and selective fiscal measures to cool overheated industries were blunt and also productivity-reducing measures to combat inflation. To attain the four goals of economic policy, Rehn and Meidner advocated restrictive macroeconomic policy, primarily indirect taxes, active labor market policy (ALMP) and wage policy of solidarity, thus equal pay for similar work in different industries and firms. These policy measures had the purpose of satisfying more than one objective. For example, the aim of wage policy of solidarity was to combine equity with growth and also to assist the monetary and fiscal policy for price stability.

The R-M model was not fully applied in Sweden even in the heydays of the model in the 1960s and early 1970s. But ALMP and wage equalization became important cornerstones of “the Swedish model”. Since the late 1950s, Swedish governments of different political colors have launched various ALMP programs particularly to reduce open unemployment in the recessions. Furthermore, there was a considerable decrease in the earning differentials in Sweden in the 1960s and 1970s mainly as a result of the wage policy of solidarity as it was implemented (Erixon 2008). Rehn and Meidner were not the inventors of ALMP programs and wage policy of solidarity. But the introduction of these policy measures in Sweden was facilitated by the argument in the R-M model that they would not only contribute to full employment and fairness but also to price stability and economic growth.

In the 1930s and 1940s, Rehn and Meidner had been trained by and collaborated with prominent representatives of the Stockholm School of Economics, especially Gunnar Myrdal and Erik Lundberg. As an external expert, Myrdal had worked together with Rehn in the committee on the labor movement’s postwar program. Furthermore, already before the 1951 LO report, Rehn had discussed his and Meidner’s alternative to the postwar Keynesian model with Lundberg (see Rehn [1950] 1952b; Lundberg [1950] 1952). However, Rehn and Meidner’s engagement in the daily debate on economic policy, their advisory role in LO, lack of academic positions and skepticism to deductive theorizing made them less willing or able to relate their ideas to contemporary economics. Inspired by Myrdal’s, and perhaps also by Lundberg’s, criticism of the mathematical orientation of economics after World War II and by giving priority to

ALMP measures to safeguard full employment, Rehn and Meidner later described themselves as institutional and selective economists (Rehn 1978, 574-575; Meidner 1998, 23). Accordingly, Rehn and Meidner handed over the introduction of their model in leading macroeconomic circles to other Scandinavian economists.

Lundberg addressed the R-M policy and the underlying theories about inflation and economic growth in Lundberg ([1953] 1957), 1972 and 1985). Although mainly critical to its policy recommendations, Lundberg was impressed by the originality and consistency of the R-M model. But Bent Hansen (1920-2002) was the economist who made the strongest efforts to formalize the R-M stabilization policy and the underlying theory about wages and inflation. Hansen was a mathematically skilled economist born in Denmark who presented his dissertation “A Study in the Theory of Inflation” at Uppsala University a few months before the 1951 LO report (Hansen 1951). By the use of the ex ante-ex post dichotomy and the influence of Erik Lindahl in particular, Hansen belonged to the second generation of economists at the Stockholm School of Economics. His works in the 1950s also comprised the vanguard of the postwar mathematical revolution in Scandinavian economics. At the same time, Hansen was an influential government advisor and expert in Sweden. In 1955-1962, Hansen was both professor of economics and head of the National Institute for Economic Research (*Konjunkturinstitutet*), a public agency making economic forecasts for the Swedish government. In 1962 he left Sweden for Cairo (he married an Egyptian woman), to become an expert advisor, researcher and teacher at the Institute of National Planning within the Egyptian Ministry of Planning. In the mid 1960s, Hansen started his second academic career in economics, first as a

professor at Stockholm University (1966) and then as a professor at University of California, Berkeley (1967). At Berkeley, Hansen e.g. wrote an advanced textbook in economics (Hansen 1970a) and an article on wage formation where he returned to the R-M idea of “asymmetric wage drift” (Hansen 1970b). After his retirement in 1987, Hansen continued to do research at Berkeley until 1998 (Matthiessen et al. 2007).

Due to his affiliation with the Stockholm School and his central position in the Swedish economic-policy debate, Hansen was acquainted with Rehn and Meidner’s policy proposals. In one section of his dissertation, Hansen depicted and evaluated the R-M model. He continued to penetrate the R-M ideas after the 1951 LO report, first in his expert report on fiscal policy for *Penningvärdeundersökningen*, a Swedish government committee on price stability where Rehn was also engaged (Hansen [1955] 1958) and then in an article together with Rehn on wage formation in Swedish manufacturing (Hansen and Rehn 1956).

Like Lundberg, Hansen had a respectful attitude toward the R-M model. He noticed the novelty of its underlying ideas on wage formation and inflation. However, Hansen’s relation to the R-M policy was generally more theoretical and neutral than that of Lundberg. There was no correspondence in Hansen’s works to Lundberg’s objections to the R-M model on empirical and also on political and ideological grounds. Lundberg feared that large public savings through a restrictive fiscal policy and extensive selective employment policy measures would elicit a bureaucratic control apparatus that would eventually become a threat to democracy. In contrast to Lundberg, Hansen became

increasingly critical to the wage policy of solidarity in the 1950s. But Hansen questioned the imperative of a policy prohibiting labor markets to clear and the vested interests of trade unions. His objections to the wage policy of solidarity were not based on empirical evidence or a negative attitude to corporatism and economic planning as such.

This article focuses on Hansen's formalization of the R-M model. Hansen's painstaking analysis of the R-M model has actually been ignored in the literature on the postwar Swedish model and also in surveys of the Stockholm School of Economics. The main question in this paper is whether Hansen succeeded in capturing the essence of the R-M model. The evaluation of Hansen's analysis is based on the 1951 LO report but also on other works by Rehn in particular. The focus on Rehn rather than Meidner is explained by Hansen's occupation with stabilization policy in the 1950s. Rehn was responsible for the sections on stabilization policy in the 1951 LO report and also for putting the separate parts of the R-M policy together (Meidner 2003, 215-16).

The notion of the R-M model is used in the article despite the reluctance of many economists, including Hansen, to use the term "model" as a label for a policy program. Hansen (1951) referred to a sophisticated "red" policy and Hansen ([1955] 1958) to the R-M policy. Our use of the model concept when presenting the R-M ideas is motivated by its general acceptance, at least from the 1960s (Lundberg, and also Meidner, mostly referred to the Rehn model). Another argument for referring to a model is that the R-M policy program was based on a set of hypotheses about underlying economic mechanisms that were consistent although not the result of a formal analysis. In this paper, the R-M

model is both an economic and wage policy program and a theory of wages, inflation, profits, employment and growth. Which of these aspects of the model I am discussing at any given point will be obvious from the context. The paper starts with a brief presentation of the R-M model from both perspectives. The three subsequent sections describe and evaluate Hansen's interpretation of the R-M ideas. These sections also contain a more precise account of the R-M model.

## **2. The Rehn-Meidner Model**

Rehn and Meidner did not exclude the need for an expansionary fiscal and monetary policy in a (deep) recession. But they advocated a restrictive macroeconomic policy in the medium term (over the business cycle). The founders of the R-M model thought that tight macroeconomic policy is an indispensable mean in the fight against inflation. They first favored a restrictive fiscal policy through indirect taxes but already in the 1951 LO report they also gave priority to monetary restraint and later to revaluations (Rehn [1948] 1952a, 50 and 1977, 223); LO [1951] 1953, 84, 90-91). A contractionary macroeconomic policy should counterbalance the tendency to higher prices with a policy aimed at securing full employment (see below). Rehn and Meidner argued that their policy combination was a more effective way of combining full employment with price stability than a Keynesian strategy mainly consisting of expansionary macroeconomic policy measures and incomes policy (Rehn [1950] 1952b, 78). In the R-M model, a tight macroeconomic policy in conjunction with ALMP measures guaranteeing full employment would contribute to the struggle against wage inflation by squeezing average profits (Rehn [1948] 1952a, 30-31, 49; LO [1951] 1953, 92-93).

The suggested positive relationship between actual average profits and nominal wages is the most original component of the R-M theory (Erixon 2011, 102-06, 117). Rehn and Meidner maintained that managers in firms experiencing higher profits will e.g. be more easy-going and reward the employees more than what is merited by their efforts (X-inefficient wages); see Rehn (1982, 2, 31) and (1987, 68). Furthermore, in the early postwar period, Rehn and Meidner emphasized that increasing profits would intensify the competition among firms for scarce labor (Meidner [1948] 1952, 19; Rehn [1948] 1952a, 32-33, 36 and [1950] 1952b, 74-75, 77; LO [1951] 1953, 92-93). In both cases, higher profits will lead to wage increases outside central wage agreements, i.e. to wage drift (*löneglidning*) in the term used by Rehn and Meidner. They purported that extensive wage drift in some industries, firms and occupations will call forth wage-wage-price races jeopardizing the goal of price stability. Wage drift is also a threat to the distribution policy of trade unions since the associated wage-wage-price spirals have an uncertain effect on wage structure and functional income distribution. Rehn and Meidner maintained that a Keynesian policy for full employment is associated with higher average profits and therefore, with a larger wage drift than their alternative policy. Incomes policy, i.e. coordinated central wage-restraint (in the Swedish case) and price controls cannot prevent extensive wage drift and inflationary wage-wage spirals if full employment is obtained by expansionary macroeconomic policies. Price (and investment) controls are not only inefficient but also, by distorting resource allocation, harmful for national productivity (Rehn [1948] 1952a, 36-37, 41, 47-48, 52-53; Meidner [1948] 1952, 25-26; LO [1951] 1953, 81-84, 92).



Rehn and Meidner expected that their deflationary macroeconomic policy would lead to unemployment in itself. The tendency to higher unemployment should be met by ALMP measures (Rehn [1948] 1952a, 33-34, 46 and [1950] 1952b, 78; LO [1951] 1953, 80, 92). Rehn and the 1951 LO report referred to selective demand-stimulating actions, favoring some wage-earner groups, industries and regions, and to matching and supply-oriented measures such as public information services, retraining program and subsidies to regional mobility (Rehn [1948] 1952a, 34, 46-47 and [1950] 1952b, 74, 76-77; LO [1951] 1953, 92-93). From the 1970s, Rehn enthusiastically backed up the introduction of marginal employment and investment subsidies as a complement to the ALMP programs of the original R-M model.

The matching and supply-oriented ALMP measures of the original R-M model had the ambition of reducing bottlenecks in the labor market and were thus weapons in the struggle against inflation. But a reasonable interpretation of the model is that the wage-depressing effects of ALMP measures are only decisive in an overheated economy (see Erixon 2000, 38-39). Rehn and Meidner took it for granted that ALMP programs would increase the pace of nominal wage increases in the medium term. They primarily referred to labor strength under full employment conditions (Meidner [1948] 1952, 17; Rehn [1948] 1952a, 32, 47, 1977, 212 and 1987, 67; LO [1951] 1953, 99). But the central role of market forces in Rehn and Meidner's analysis of the wage process (see wage drift) makes it plausible to emphasize the impact of ALMP measures on labor scarcity *per se* (see Meidner [1948] 1952, 19; Rehn [1948] 1952a, 36; Hansen and Rehn 1956, 87-88).

For example, people are engaged in various ALMP programs instead of being directly available for the private sector.

In the R-M model, ALMP measures must have a positive effect on wages in the medium term to guarantee that a restrictive macroeconomic policy will reduce profits' share of national income. (The R-M model excludes the possibility of offsetting changes in production technologies.) To reduce profits, Rehn also recommended antitrust policy measures in cases where market power was not based on natural monopolies (Rehn 1953, 279-280, 283). Rehn and Meidner expected that a profit decline would hold back inflationary wage drift (see above). But they also preferred a reduction in the profit share of GDP on equity grounds. Their ambition was to increase fairness and also fulfill some industrial-policy purposes by increasing public saving at the expense of corporate saving (Rehn [1948] 1952a, 51-54 and [1950] 1952b, 78). Furthermore, Rehn and Meidner thought that a general reduction in profits would enforce rationalization within firms and their introduction of new technologies (LO [1951] 1953, 24, 94-99; Rehn [1948] 1952a, 47, 49). Thus, in the R-M model, the squeeze of actual profit margins in general through the combination of ALMP and tight macroeconomic policy was not only meant to alter functional income distribution in favor of labor and reduce inflation but also to enhance economic growth.

In the R-M policy program, ALMP should sustain full employment when governments (and the Central Bank) impose restrictive macroeconomic policies but also when trade unions adopt a wage policy of solidarity, i.e. insist on equal pay for equal work regardless

of the profitability of the companies. Rehn and Meidner defined equal jobs in terms of some objective criteria, for example required qualifications and working conditions (LO [1951] 1953, 94-99; Rehn [1948] 1952a, 43-44). Wage policy of solidarity, which needs coordinated wage negotiations, will increase wages for the least profitable firms and industries. To survive, these firms and industries have to transform, e.g. by taking productivity-enhancing measures. If they fail, productive resources will be freed for the expansion of other firms and industries (Meidner [1948] 1952, 25, 29; LO [1951] 1953, 25-6, 34-5, 96; Rehn [1948] 1952a, 43-44 n.). However, to avoid structural unemployment, and also to achieve equal pay for similar jobs and structural change, the wage policy of solidarity must be combined with ALMP measures aimed at reallocating labor to more dynamic and efficient firms and industries. Furthermore, the policy for full employment (see ALMP) is necessary to make central trade unions sufficiently strong to realize the wage policy of solidarity (Rehn [1948] 1952a, 40-41). And the combination of ALMP and restrictive fiscal and monetary policy measures is necessary to prevent that the pressure on inefficient firms from the wage policy of solidarity is counteracted by favorable profit conditions in general.

In theories of perfect labor markets, wage earners will move smoothly across firms and industries through the incentives of wage differentials. In this theoretical perspective, equal wage for similar work is a consequence of rather than a precondition for the reallocation of labor. A wage policy of solidarity (together with ALMP) was considered by Rehn and Meidner as a fair and less inflationary way of attaining structural change. They argued that the alternative strategy of temporary wage differentials cannot entail

absolute wage reductions in retarding sectors. Furthermore, the wage differentials must be large in order to overcome inertia in labor markets and extensive wage drift in dynamic sectors would elicit wage-wage races, especially under full-employment conditions. In the R-M model, a solidarity wage policy would contribute to the struggle against inflation by keeping down wages (wage drift) in firms that could have paid more (Rehn [1948] 1952a, 43-46, 1953, 280-284 and 1977, 214; LO [1951] 1953, 95-96). Rehn and Meidner also expected that wage-wage races would be mitigated by the establishment of fair wage differentials in line with the wage policy of solidarity (LO [1951] 1953, 89-91, 94-96, 99; Rehn [1948] 1952a, 31-2, 39-44). But stabilization policies to reduce profit margins in general and ALMP measures to speed up mobility are necessary means of suppressing inflationary wage drift in expanding industries and firms.

In the R-M model, the wage policy of solidarity and restrictive macroeconomic policy measures in conjunction with ALMP programs aimed at squeezing profits in general are both necessary conditions for price stability. If these economic and wage policy conditions are satisfied, a “voluntary” incomes policy by central labor market organizations in order to achieve wage increases in line with productivity growth is both possible and warranted. Thus, after a necessary decline in the medium term to stabilize the economy, profits’ share of national income should be constant, primarily to avoid that private investments are seriously hampered by too low profits (Rehn [1948] 1952a, 36 and [1950] 1952b, 74-77; LO [1951] 1953, 91-94).

### 3. Hansen's Dissertation

#### 3.1. Evaluating a New Economic-Policy Program

Hansen's analysis of a sophisticated "red" economic policy in his dissertation was an attempt to formalize Rehn's stabilization policy within a disequilibrium-theoretical framework and, although in a benevolent way, make some reservations to Rehn's (and Meidner's) conclusions. Hansen referred to the presentation of Rehn's program in Rehn ([1948] 1952a) and Lundberg ([1950] 1952). The inflation tendencies and income policies (price and wage controls) in Sweden in the early postwar years provided the empirical background for the R-M model and also for Hansen's dissertation.

Hansen's theory of inflation was inspired by Lindahl's disequilibrium analysis of time periods with given prices and possible discrepancies between planned purchases (demand) and expected sales (supply). Hansen also pointed out that his disequilibrium approach and endogenous view of prices and wages were compatible with Knut Wicksell's theory of inflation. Another influence on Hansen was John Hicks's Walrasian general equilibrium analysis in *Value and Capital*. Hansen particularly referred to Hicks's disequilibrium notion of "excess demand" (Hicks [1946] 1974, 63). He extended Hicks's general analysis to the labor market but abandoned the dynamic analysis of the capital market of the latter. When deriving the aggregate product-demand function, Hansen did not take account of the capital market but assumed throughout his analysis that the rate of interest was constant (Hansen, 1951, VIII, 35, 184).

Hansen further mentioned that his dissertation was inspired by Keynes but hardly “Keynesian” (Hansen, 1951, VIII). The distinction between induced (endogenous) and spontaneous (exogenous) changes in factor and product prices in *A Treatise on Money* was compatible with his own approach. But he criticized the Keynesians, explicitly Tjalling Koopmans and Lawrence Klein, for only regarding wage changes as spontaneous, thus ignoring that excess demand on the factor market tends to increase wages and prices even when the product market is in equilibrium (Hansen 1951, 14-21 and 78 n. 1). Hansen suggested that the Keynesians had been inspired by *How to Pay for the War* and also by “some stray ideas” in the *General Theory*.<sup>1</sup> Hansen generally criticized Keynes for considering deflation and unemployment as general cases (Hansen 1951, 29 n. 2) and as static rather than quasi-equilibrium states of continuously falling prices and wages (178-79, 185-86, 245).<sup>2</sup> The comparative static-equilibrium approach probably explains, together with the focus on the capital market, why Hicks’s and Alvin Hansen’s IS-LM interpretation of the *General Theory* (see the neoclassical synthesis) is not mentioned in Hansen’s dissertation.

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<sup>1</sup> Here, Hansen referred to Keynes’s analysis in the *General Theory* of the possibility of wage increases already before increasing aggregate demand has led to full employment (Keynes 1936, 301-02). He seemed to criticize Keynes for ignoring that these wage increases are directly induced by tighter labor-market conditions. But Hansen’s own analysis of wage increases below full employment was embryonic in his dissertation (see Hansen 1951, 186-88). And in the dissertation, he referred to Joan Robinson, not to Keynes, despite the fact that also Robinson neglected the fact that wage increases before full employment can reflect labor-market bottlenecks (see Robinson 1937, 6-7; Hansen and Rehn 1956, 88). Furthermore, Hansen did not emphasize that wages are endogenously determined in a state of full employment in the *General Theory*.

<sup>2</sup> In fact, Hansen also criticized Lindahl and other Stockholm-school economists for assuming that all purchase plans are realized excluding the possibility of supply restrictions (excess demand) in the labor market. He generally criticized Lindahl for not making a clear distinction between disequilibrium states in product and labor markets (Hansen 1951, 29-35).

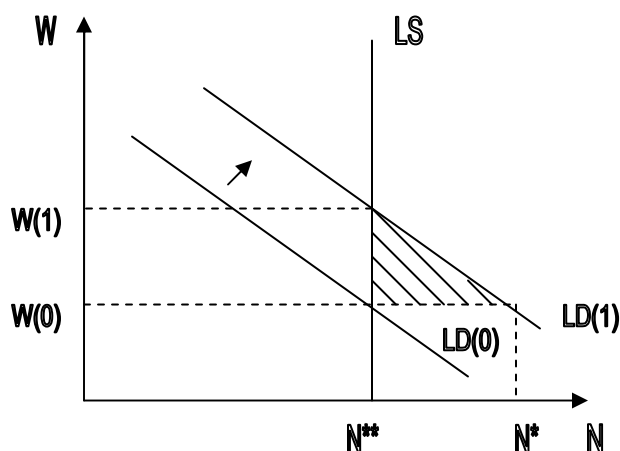
Hansen defined an initial disequilibrium state characterized by monetary pressure of inflation. In this state, there is monetary excess demand in either the aggregate product market or the aggregate factor market or in both. Hansen stressed that monetary pressure of inflation could exist even if the factor market or the product market was in a monetary equilibrium. Furthermore, excess demand in the commodity and/or factor market does, by definition, correspond to excess supply in monetary markets (Hansen 1951, 1-8).

In Hansen's theory, excess demand is compatible with open inflation, i.e., by induced price and wage increases, or by repressed inflation. In the latter case, open inflation is avoided by price and wage controls *or* by Rehn's stabilization policy program (Hansen 1951, 129-133). Hansen identified Rehn's policy program with a restrictive fiscal policy to prevent price increases in an inflationary economy where nominal wages are permitted to increase freely. Thus, Hansen considered the R-M model as a policy of constant prices and flexible wages "while at the same time the demand relationships are left to themselves" (Hansen 1951, 129). He maintained that excess demand on labor markets could be eliminated by the wage increases of the R-M model. This adjustment can be shown by a figure representing a competitive labor market – see figure 1. It assumes that all labor is a variable cost for the firms and that labor supply is given (Hansen 1951, 84, 160, 179-80).<sup>3</sup>

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<sup>3</sup> The figure was used in Hansen and Rehn (1956) but not in Hansen (1951); other underlying assumptions are therefore presented in section 5.

Figure 1: The convergence to labor-market equilibrium. The interpretation of the Rehn-Meidner model in Hansen (1951)

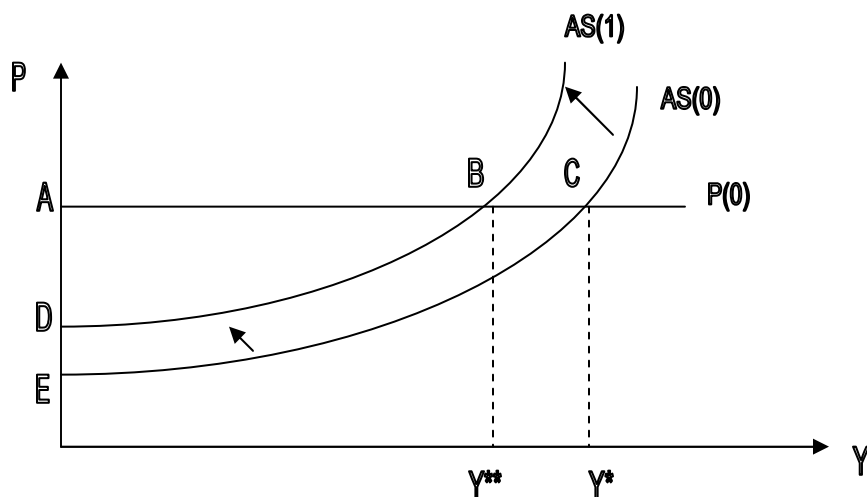


Excess demand could have emerged through a shift in labor demand from  $LD(0)$  to  $LD(1)$  given the labor supply  $LS$  and the nominal wage  $W(0)$ . With Hansen's interpretation of the R-M model, monetary equilibrium in the labor market, i.e. full employment, is achieved by an increase in the wage rate from  $W(0)$  to  $W(1)$ . Hansen argued that the wage increase will also reduce planned production to a level corresponding to the labor-market equilibrium. Hansen visualized the tendency to equilibrium in a competitive product market by [figure 2](#). The upward slope of the marginal cost curve (the planned product supply curve)  $AS(0)$  reflects diminishing marginal productivities given the nominal wage rate. Product prices  $P(0)$  are constant representing the R-M fiscal policy under repressed inflation. Initially, there is excess product demand at  $Y^*$ , thus at the intersection between  $P(0)$  and  $AS(0)$ . The wage increase with the R-M strategy (see figure 1) shifts the marginal cost curve from  $AS(0)$  to  $AS(1)$  until  $Y^{**}$  has been reached. The output level  $Y^{**}$ , which is determined by the



employment level  $N^{**}$  in figure 1, is characterized by an equality between realizable (actual) and planned production.

Figure 2: The convergence to a product-market equilibrium. The interpretation of the Rehn-Meidner model in Hansen (1951)



Hansen also expected a tendency to lower inflation pressure in product markets with the R-M policy through the reallocation of resources to more productive firms when production falls from  $Y^*$  to  $Y^{**}$ .<sup>4</sup> But this tendency might be offset by a stronger *demand pressure* on product markets. Hansen assumed investments to be given. But the increase in nominal wages can stimulate private consumption through the effects on functional income distribution. Hansen demonstrated the effects of wage increases on functional income distribution by comparisons of areas above and below the aggregate product

<sup>4</sup> Hansen did not develop why a reduction in planned production would lead to a transfer of resources to dynamic firms. This relationship had been suggested by Lundberg whose explanation was that a lower price-wage ratio “would eliminate those forms of production and investment least valuable to the consumer...leaving room for expansion in other more desirable spheres” (Lundberg 1952 [1950], 61). Hansen could also have referred to the elimination of low-productivity firms freeing resources for the expansion of firms with superior technologies (see the forthcoming Solow-Salter vintage theory).

supply curves given the price line  $P(0)$ . Figure 2 simplifies Hansen's analysis by only defining the reduction in intra-marginal profits when the economy moves from  $Y^*$  to  $Y^{**}$ . These profits will fall from AEC to ADB, thus the profit reduction is equal to BCED. The associated increase in wages' share of national income will boost private consumption leading, *ceteris paribus*, to a higher demand pressure on commodity markets if the consumption ratio is lower for capitalists than for workers.

Thus, Hansen asserted that Rehn's anti-inflationary program might be challenged by the change in functional income distribution leading to an increase in the consumption ratio at the aggregate level. However, by considering the possibility of other saving propensities, the stimulation of productivity (see the argument about structural change above) and the certain reduction in the factor gap, Hansen drew the conclusion that the effects of the R-M policy on inflationary pressure were ambiguous. It is noteworthy that Hansen's qualification of the R-M results and the underlying aggregate demand function was based on a relation between functional income distribution and total private consumption (see Hansen 1951, 117-19). This relation plays a salient role in post-Keynesian economics but not in the neoclassical (-Keynesian) synthesis or the succeeding new Keynesian-rational expectation theory.

Hansen correctly attributed a stabilization policy resulting in rising real wages and falling profit shares of GDP to Rehn. And he modeled the basic idea in the R-M model that deflationary fiscal policies do not do exclude full employment or even nominal wage increases and that these outcomes are compatible with unchanged (and even lower)

inflationary pressure. Moreover, it seems legitimate to analyze the effects of the R-M model by a disequilibrium model reproducing the overheated conditions of the early post-war years. Finally, Hansen and Rehn's theory of inflation was basically one of endogenous wage increases which, parenthetically, facilitated their collaboration a few years later. Yet Hansen's formalization gave no full justice to the R-M policy program or to essential parts of the underpinning theory of inflation.

### 3.2. Some Fallacies in Hansen's First Description of the Rehn-Meidner Model

Rehn and Meidner's arguments for their economic and wage policy and view of the functioning of the Swedish product and labor market can all be found in publications before the 1951 LO report.<sup>5</sup> But the LO report presented after Hansen's dissertation was more transparent, systematic and consistently medium-range than Rehn and Meidner's previous works. What is more, Hansen's understanding of the R-M model in the early 1950s was built on the vague, and in some respects misleading, description in Lundberg (1952 [1950]).<sup>6</sup>

Neither wage policy of solidarity, nor ALMP, was considered in Hansen (1951) notwithstanding the references to these policies by Rehn and Meidner in works before the 1951 LO report. Rehn emphasized that the wage policy of solidarity was a necessary condition for price stability (Rehn [1948] 1952, 31-32, 39). But Hansen's neglect of this

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<sup>5</sup> Erixon (2011) incorrectly asserted that the recommendation of a constant profit share of GDP in the long run had no correspondence in Rehn and Meidner's articles before 1951 (see Erixon 2011, 96; Rehn [1948] 1952a, 36 and [1950] 1952b, 75-77).

<sup>6</sup> Basically, Hansen inherited Lundberg's confusion between the short and medium term in the R-M model. Moreover, Lundberg did not clarify (as in later publications) that a policy of squeezing profits in general is compatible with profit differentials between firms and between industries, profit differentials that are widened by ALMP measures, wage policy of solidarity and marginal employment subsidies in the R-M model (cf. Lundberg [1950] 1952, 66-67).

policy as a pillar for price stability is less critical than his failure to shed any light on the distinction between the short and medium term and the proper role of ALMP and fiscal-policy measures in the R-M strategy.

In Hansen's version of the R-M model, excess demand in labor and product markets is eliminated by nominal wage increases. But already in their early writings did Rehn and Meidner recommend that overheated business-cycle conditions should be conquered by a tight fiscal policy aimed at restricting aggregate demand, that is by a shift of the labor-demand curve from LD(1) to LO(0) in figure 1.<sup>7</sup> Thus, in the R-M model, the adjustment of real wages (a decrease in the price-wage ratio) is obtained by measures curtailing the demand for products and services in an economy with open inflation, not by nominal wage increases in an economy with repressed inflation.<sup>8</sup> Higher nominal wages were a possible outcome of Rehn and Meidner's policy for the medium term, not of their policy for an overheated economy.

Hansen's inquiry into the effects of the R-M policy made no distinction between the short and medium term. He overlooked that the R-M model is basically a policy program for the medium term. Already in the late 1940s, Rehn underlined that ALMP measures are needed to guarantee full employment in the wake of a tight fiscal policy (see Rehn [1948]

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<sup>7</sup> Let us here ignore that Rehn and Meidner did not define full employment in terms of a competitive equilibrium model as above but in terms of Beveridge's definition "more jobs than men" (Rehn [1948] 1952a, 33-34; LO [1951] 1953, 83). In some works, Rehn and Meidner used a domestic statistical measure to associate full employment with unemployment rates below three per cent (see LO [1951] 1953, 37; Rehn 1953, 283-84).

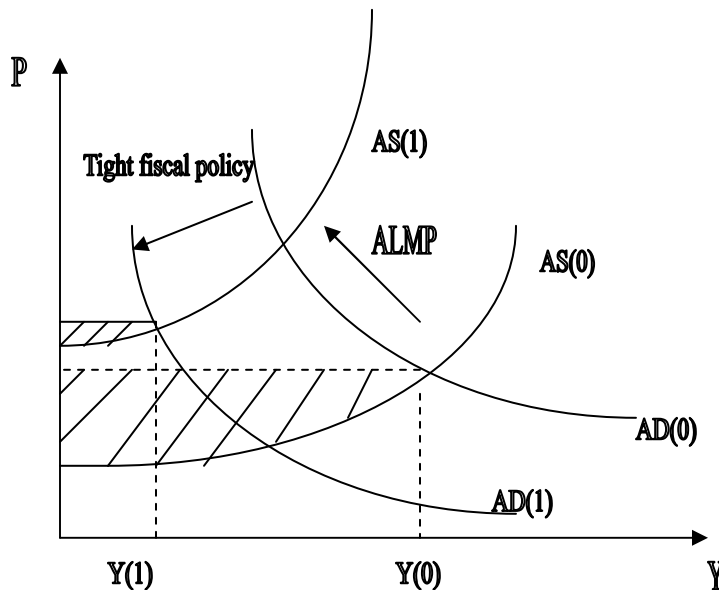
<sup>8</sup> It is less important that Hansen did not associate a reduction in public consumption and investment with a decline in aggregate demand but with a reduction in product supply to meet private demand (see Hansen 1951, 172 and 174). Hansen abandoned this view of public purchases already in Hansen ([1955] 1958).

1952a, 33-34, 52). He also posited that ALMP measures to sustain full employment would lead to nominal wage increases notwithstanding the expected positive impact on labor-market flexibility. Thus, in the R-M model, nominal wage increases are not an adjustment to the macroeconomic equilibrium when the labor market is overheated, as suggested by Hansen, but an effect of ALMP measures in the medium term. These measures are crucial components of a policy to increase real wages and reduce profits' share of national income over the business cycle.

When explaining the positive relationship between ALMP and wages, Rehn and Meidner primarily referred to the strengthening of labor when governments pursue a policy for full employment. But a hypothesis that ALMP will reduce labor supply is more in line with the basically competitive labor-market perspective in the R-M model. Labor supply in the private sector can be reduced by people's participation in the ALMP programs (see the notion of locking-in effects) or lower job search intensity. Rehn and Meidner also expected ALMP measures to serve as a wage floor preventing tight fiscal policy (or restrictive macroeconomic policy in general) from eliciting wage reductions. For example, the reservation wages may be raised by the compensation to participants in ALMP activities. Wage rigidity downward through the ALMP measures explains why restrictive fiscal policy, *ceteris paribus*, has a negative effect on production and employment in the R-M model. In contrast to Hansen, Rehn and Meidner assumed that their restrictive fiscal policy would curb actual production and employment.

Figures 3 and 4 envisage the medium-term perspective, but also the complementary relation between ALMP and fiscal policy, in the R-M model. Departing from Hansen (1951), but in line with later approaches in macroeconomics, Rehn and Meidner analyzed the effects of economic policy under the assumption of an initial macroeconomic equilibrium. The product market in figure 3 is assumed to be competitive. The aggregate supply curve (marginal cost curve) slopes upward, reflecting the fact that marginal productivities are diminishing and nominal wages are given. The figure is compatible with Hansen's theory of open inflation for a perfectly competitive product market in a closed economy (see Hansen 1951, Chapter VII).<sup>9</sup>

Figure 3: The effects of ALMP and fiscal policy on the product market according to the Rehn-Meidner model



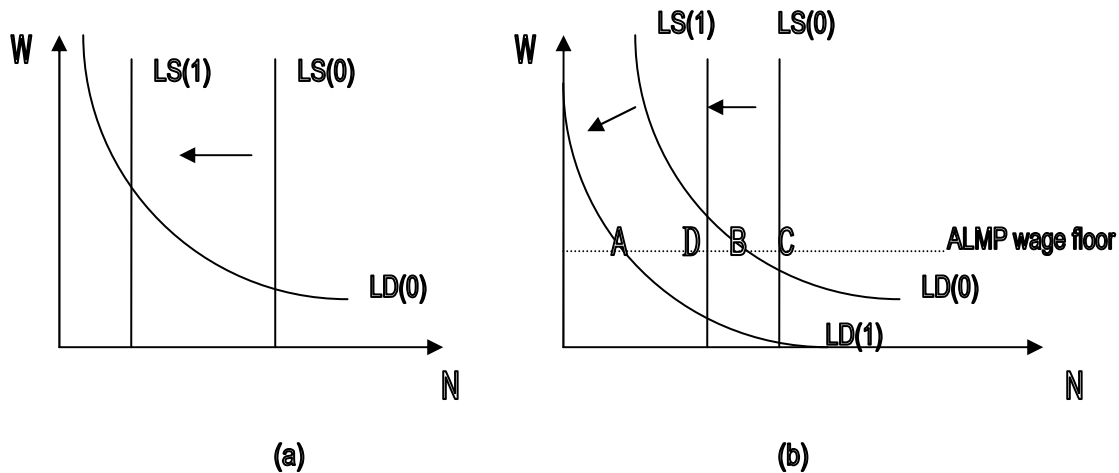
<sup>9</sup> Hansen's aggregate (planned) demand curve does not necessarily have a negative slope. The relationship between prices and demand in Hansen's theory depends on the effects of price changes on consumption and investment propensities through the associated change in functional income distribution (see Hansen 1951, 92-99). But in the analysis of open inflation, Hansen assumed the slope of the demand curve to be negative. Higher prices (with given wages) leading to an increase in capitalists' share of GDP would reduce consumer demand and also total demand when private investments are given (Hansen 1951, 109-13, 160).

The effects of ALMP and fiscal measures on the product market in the R-M model are represented in figure 3 by an upward shift in the aggregate-supply curve from  $AS(0)$  to  $AS(1)$  and a downward shift in the aggregate-demand curve from  $AD(0)$  to  $AD(1)$ , respectively. The effects on prices are ambiguous. A constant product price is a possible outcome of the shifts in aggregate demand and supply, not of a restrictive fiscal policy aimed at preventing price increases under excess product-demand conditions as in Hansen's version of the R-M model. But production will unambiguously fall, from  $Y(0)$  to  $Y(1)$ . ALMP programs will reduce labor supply in the private sector in the medium term. And fiscal policies leading to lower aggregate demand will restrict the production when ALMP provisions serve as a wage floor preventing a Walrasian adjustment of wages to falling prices. This case of wage rigidity is similar to that in the *General Theory* according to the mainstream interpretation of Keynes's ideas (see Romer 2006, 242-44). But wages are only sluggish downward in the R-M model, reflecting that governments will introduce ALMP measures to sustain full employment endangered by a contractionary fiscal policy.

Figure 4 shows the effects of the R-M policy on wages and employment. Figure 4(a) reproduces a competitive labor market under the assumption that ALMP measures will reduce labor supply in the private sector. The labor supply curve, which is here assumed to be vertical, shifts from  $LS(0)$  to  $LS(1)$ . Figure 4(b) also takes account of the R-M fiscal policy shifting the labor demand curve from  $LD(0)$  to  $LD(1)$  with ALMP programs serving as a wage floor. In total, ALMP and deflationary macroeconomic measures result in constant or higher nominal wages. In this specific case, wages are the same in the new

equilibrium A (see the intersection between the  $LD(1)$  line and the ALMP wage floor) as in the old equilibrium B (see the intersection between the  $LD(0)$  line and the ALMP wage floor). However, in the R-M model, downward wage rigidity is a sufficient condition for a profit squeeze in the medium term.

Figure 4: The effects of ALMP in themselves (a) and in conjunction with fiscal policy (b) in the labor market according to the Rehn-Meidner model



The effects of the R-M policy on the absolute size and rate of unemployment in the private sector are ambiguous. The tendency to higher unemployment through fiscal policy is counterbalanced by the reduction in labor supply through ALMP measures. In this case, see figure 6(b), unemployment in the private sector will increase in absolute terms from BC to AD. Rehn and Meidner maintained that ALMP measures would prevent open unemployment in the economy. But they seemed to presume that their policy mix would increase unemployment in the private sector and thus, that the effect of fiscal austerity is decisive. If we assume that more ALMP programs will strengthen the



position of labor, unemployment in the private sector will certainly increase with the R-M policy.

Obviously, Hansen (1951) did not recognize the complementary relations between the ALMP and fiscal policy measures (and the wage solidarity policy) in the R-M model. ALMP programs are required to prevent open unemployment in the aftermath of a restrictive fiscal policy measure while tight fiscal restraint is needed to counterbalance the wage-increasing effect of ALMP measures. And ALMP measures are further needed in the R-M model to prevent wage reductions counteracting the tendency to lower employment and production through fiscal restraint; this conditional role for ALMP exemplifies the interactions between the policy measures in the model.

In his dissertation, Hansen did not only disregard the medium-term horizon and the complementarities between the ALMP and fiscal measures in the R-M model but also the model's underlying ambition to squeeze profit margins. A central idea in the model is that higher actual profits (or profit margins) will stimulate wage drift. Rehn and Meidner hoped that the tendency towards wage drift through the negative effects of ALMP programs on labor supply would be alleviated by the subsequent reduction in average profits. Intra-marginal profits will be reduced both by ALMP programs and restrictive fiscal policies (given the ALMP wage floor). The intra-marginal profits at the initial  $Y(0)$ , thus with the Keynesian strategy for achieving full employment, are shown by the large shadowed area in figure 3. Intra-marginal profits when applying the R-M policy are shown by the small shadowed area in the figure.

Thus, Meidner and Rehn's skeptical attitude to achieving full employment with an expansionary fiscal policy was based on a theory about a positive relationship between profits and nominal wages or, more precisely, between profits and wage drift. They posited that the high-profit alternatives to attain full employment are more inflationary than the low-profit alternatives. Neither in the 1951 LO report nor in earlier publications did Rehn and Meidner make a clear distinction between marginal and average profits. But when arguing for their alternative to the postwar Keynesian strategy, Rehn and Meidner relied on a theory about a positive relationship between intra-marginal profits and wages. In the early 1950s, Hansen was still unaware of the central role of this relationship in the R-M model.

Furthermore, Hansen (1951) paid no attention to the R-M argument that wage drift would elicit wage-wage-price races. In the R-M model, high labor demand in some sectors of the economy and for some wage-earner groups would engender compensatory wage claims by wage earners in other sectors and occupations. Rehn and Meidner argued that the Keynesian strategy would result in higher average profits, more wage drift and, in due course, in more serious wage-wage races than their own policy program.

In his dissertation, Hansen did consider (though only marginally) the possibility of wage-wage races. But he regarded them as spontaneous, thus not as initiated by market-induced wage increases, a crucial component of wage drift in the R-M model. In fact, in his discussion of Rehn's proposal, Hansen put incomes policy (price and wage controls) on

the same footing as a restrictive fiscal policy. Thus, he disregarded Rehn and Meidner's hypothesis that incomes policy is an ineffective instrument to combat inflation in a situation of extensive wage drift. Furthermore, Hansen downplayed the possibility (at least in theory) that spontaneous wage-wage-price increases could lead to unemployment by resulting in a strong increase in real wages (Hansen 1951, 167-68).

To conclude this analysis, at the time of the 1951 LO report, Hansen was unable to formalize essential parts of the R-M model. He correctly attributed restrictive fiscal policies, higher real wages and declining profits' share of GDP to the model. But he incorrectly saw nominal wage increases, not fiscal restraint, as a remedy to overcome overheated economic conditions. Hansen's failure to distinguish between the short and medium term perspective in the R-M model obscured the fact that ALMP programs are strategic measures in the medium term for sustaining full employment when governments follow the model's recommendation of a restrictive macroeconomic policy aimed at combating inflation. AMLP measures are also necessary in the model to ensure that the recommended macroeconomic policy has real effects. Furthermore, Hansen ignored the hypotheses in the R-M model that higher average profits would lead to larger wage increases, particularly by inducing a wage drift, and that an extensive wage drift would initiate wage-wage races threatening ambitious goals not only of distribution policy but also of stabilization policy. Rehn and Meidner's preliminary presentation of their ideas in works before the 1951 report is one explanation for why Hansen did not fully grasp the content of the R-M model at the time of his dissertation.

#### 4. Hansen's Analysis of the Rehn-Meidner Model After the 1951 LO Report

##### 4.1. A Growing Insight into a New Stabilization Policy

Hansen's committee report *The Economic Theory of Fiscal Policy* was an independent contribution by Hansen to the goal-mean analysis of fiscal policy in earlier and contemporary works by Ragnar Frisch and Jan Tinbergen. In the report, Hansen largely abandoned the concepts of the Stockholm School of Economics. While maintaining the post-Keynesian distinction between capitalist and worker propensities to save, Hansen was now heavily influenced by the intertemporal utility theory of consumption and saving developed by Hicks, Franco Modigliani and Irving Fischer. Hansen's macroeconomic analysis was still in line with Hicks's Walrasian approach in *Value and Capital*. But as in his dissertation, Hansen consistently ignored Hicks's (and Alvin Hansen's) IS-LM version of the *General Theory*. Hansen ([1955] 1958) simply assumed that the interest rate was determined by monetary policy.

Hansen ([1955] 1958) scrutinized the various fiscal and also monetary policy means of combining full employment with price stability. Thus, Hansen directly addressed the fundamental stabilization-policy issue in the R-M model that, despite everything else, had been subordinate to the positive analysis of inflation in his dissertation. Hansen analyzed the R-M policy in a section with the same title as the 1951 LO report. He could now lean on the more systematic presentation of the R-M ideas in the LO report, some new publications by Rehn and Lundberg and also on discussions with Rehn in *Penningvärdeundersökningen*. In fact, Hansen had taken over the concept of wage drift. And his distinction between market-conditioned (endogenous) and other wage drift was

compatible with Rehn and Meidner's view (Hansen [1955] 1958, 340-41). Now, Hansen also expressed a skeptical attitude to incomes policy – it is governments that are responsible for full employment and price stability, not labor market organizations by showing wage restraint (Hansen [1955] 1958, 365-66). In alignment with the R-M model, Hansen further advocated the use of general indirect taxes (xiv-xv).

Hansen ([1955] 1958) gave a more representative picture of the R-M model in several respects. First, Hansen was now conscious of the fact that wage policy of solidarity was a necessary condition for price stability in the R-M model. Second, Hansen had eventually arrived at the insight that full employment in the model is attained by the government, thus not by endogenous wage increases. Third, Hansen ([1955]1958) correctly connected Rehn and Meidner's fiscal policy with general indirect taxes. Fourth, Hansen now reproduced the idea in the R-M model that wage drift may challenge the wage policy of solidarity and, by inducing wage-wage races, the goal of price stability. (Like Rehn and Meidner in their early writings, Hansen focused on a market-conditioned wage drift.) Fifth, in a section on heterogeneous labor markets, Hansen clarified the R-M idea (in fact better than Rehn and Meidner themselves) that wage drift might be a threat to price stability regardless of the possibility of wage-wage races. In the case of asymmetric wage drift, market-conditioned wage increases for (some) workers in dynamic sectors do not corresponded to, at least not to the same extent, wage decreases (downward wage drift) for other workers. Therefore, the wage rate may increase on average despite the fact that there is unemployment in the labor markets for other workers. Shortage of some (skilled) labor will also restrict production before the achievement of full employment (Hansen

[1955] 1958, 347-50). Hansen's explanation of asymmetric wage drift that the wage policy of solidarity functions as a wage floor (see section 4.2 below) deviates from that of Rehn and Meidner.<sup>10</sup> But, in accordance with the R-M model, Hansen emphasized that mobility-enhancing ALMP measures could reduce the scope for asymmetric wage drift (Hansen [1955] 1958, 350, 369).

Sixth, the description of the R-M policy in Hansen ([1955] 1958) did not, like Hansen (1951), focus on a particular phase in the business-cycle – overheating – but correctly on a situation where the economic circumstances are determined by the economic policy in itself. In his analysis of economic policy, Hansen did no longer consider monetary equilibrium on labor and product markets as a possible outcome but as a point of departure for an analysis (predominantly static) of how full employment and price stability could be sustained, primarily in a closed economy, when other goals are added, tax structure is altered or the economy is hit by demand and supply shocks (see Hansen ([1955] 1958, 76 and Chapter XIII, XIV and XV). And he was now aware of the fact that the R-M model was mainly formulated for the medium term. Accordingly, Hansen found it natural to start his analysis of the model by assuming that the government conducts a restrictive fiscal policy with a negative effect on production and a positive effect on unemployment.

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<sup>10</sup> In the R-M model, overall wage rigidity is explained by the ALMP measures, not by the wage policy of solidarity. Rehn also suggested that wage rigidities exist in a “free” labor market, thus even without the R-M policy. One of his explanations was similar to that in the efficiency-wage theory (see Rehn 1987, 69, 76).

Seventh, Hansen ([1955] 1958) correctly noticed the central role of low actual profit margins for price stability in the R-M model. By referring to the R-M view, Hansen claimed that workers and their unions might be provoked by high average profits on equity grounds. The connected wage claims may exceed the productivity component of the profit increase. Hansen agreed with Rehn and Meidner that a squeeze of profit margins, and a related decline in profits' share of national income, might be needed to generate wage increases in accordance with productivity growth (Hansen ([1955] 1958 368-70). He explicitly referred to the "anti-Keynesian" argument in Rehn ([1948] 1952a) that full employment should be sustained by policy actions controlling the general level of profits (Hansen ([1955] 1958, 370). Hansen used his demand-supply approach to shed some light on the distinction between marginal profits, which are zero in a competitive product market in equilibrium, and average profits.<sup>11</sup> As in his dissertation, Hansen envisaged the effects of economic-policy strategies on average profits by comparing areas between the price line and the upward-sloping product supply curve in graphs similar to figure 2 above. But now, Hansen's interest in intra-marginal profits did, like in the R-M model, reflect a concern for general wage development, not for aggregate demand.

Hansen's more accurate analysis of the R-M model in Hansen ([1955] 1958) can be demonstrated by his discussion of the means to avoid unemployment after the

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<sup>11</sup> Hansen assumed that profits at the employment margin are positive on monopoly markets in equilibrium; thus, that mark-ups are positive (see Hansen [1955] 1958, 368). Hansen's notion of marginal profits is controversial. It could be argued that profits at the employment margin are also zero in equilibrium in markets with imperfect competition. Monopoly firms will no longer continue to make investments and price reductions (leading to higher labor demand) if the associated change in profits has been reduced to zero.





employment  $Y(0)$ . Hansen considered the case where aggregate demand is stimulated by a subsidy to wage earners. If private saving and investment are given,  $Y(0)$  can be obtained without any change in the public budget balance (the economy is closed). Hansen also discussed the possibility that the combination of subsidies (including the marginal subsidy to firms) and general indirect taxes would lead to a public budget surplus (when private investment is still given). If the marginal saving ratio is lower for wage earners than for capitalists, the decline in profits' share of GDP is associated with a reduction in private saving (Hansen [1955] 1958, 371-73).

The analysis of marginal employment subsidies and other ALMP measures in Hansen ([1955] 1958) showed that Hansen now agreed with Rehn and Meidner that average profits will be lower with the R-M policy than with a Keynesian strategy for full employment. Moreover, Hansen accepted the R-M hypothesis about a positive relationship between average profits and wages. But, at the same time, Hansen raised some objections to the R-M model.

Hansen maintained that an argument "in the discussions on the Rehn policy" that a restrictive fiscal-policy would result in a public budget surplus must be qualified (see the analysis of marginal employment subsidies above). The lack of a clear target for Hansen's criticism on this point was sensible. The 1951 LO report had declared that a tight fiscal policy would not necessarily lead to positive public saving (LO [1951] 1953, 91). But Hansen also questioned that the R-M policy was the only way of combining full employment with price stability. He argued that a situation where high profits lead to

wage inflation can be circumvented by a specific composition of economic-policy means (see further below). Hansen also posited that the use of indirect taxes and ALMP measures is a complicated way of combining full employment with price stability even if we accept the R-M argument that stabilization policy cannot succeed if average profits are high. These policy measures could simply be replaced by an increase in profit taxes since wage earners are certainly concerned about profits after taxes. And profit taxes will not reduce labor demand in the private sector (marginal profits are unaffected); thus, there is no need for ALMP measures to obtain full employment. Any negative effects on consumption of higher profit taxes (capitalists may consume less) can be counteracted, for example, by a direct subsidy to workers. Hansen accepted Rehn's empirical argument against profit taxes – the high level of direct taxes (in the 1950s!) provided less room for increases in profit taxes because of disincentive effects and tax evasion (Rehn [1948] 1952, 50; Hansen ([1955] 1958), introduction xiv-xv, 194, 374). But, more importantly, the 1951 LO report and Rehn in particular resisted profit taxes by claiming that tax deductions will increase firms' expenditure (on both consumption and investment) and thus contribute to wage drift (LO [1951] 1953, 93 n.; Rehn, 1987, 68). Without referring to Rehn, Hansen rejected this argument on theoretical grounds with much emphasis (see Hansen ([1955] 1958, 199-200). However, in their joint article, Hansen agreed with Rehn that, by making employers more careless about expenditure, profit taxes might have a positive effect on nominal wages (Hansen and Rehn 1956, 95 n. 2).

Whatever the validity of Hansen's criticism of Rehn and Meidner's analysis, by considering a relationship between average profits and wages and the possibility of

squeezing profits by tight fiscal policy and sustaining full employment by ALMP measures (including marginal employment subsidies), Hansen ([1955] 1958) came close to providing a satisfactory picture of the R-M model. But there were still some flaws in Hansen's description of the model. First, Hansen was yet unaware of the comprehensive role of ALMP measures. By an assumption of homogenous labor in central parts of the section on the R-M policy, Hansen ([1955] 1958) was unable to elucidate why ALMP programs to increase labor-market flexibility are necessary, for example, to prevent marginal employment subsidies from prompting extensive wage drift before the economy has reached full employment. And Hansen still masked the strategic role of the original ALMP measures in the R-M model to reduce profits' share of GDP in the medium term by putting an upward pressure on nominal wages.<sup>12</sup> Accordingly, Hansen ([1955] 1958) was unable to shed any light on the fact that a reduction in actual profits is necessary in the R-M model to counteract the tendency to higher wages in the medium term. If changes in average profits are neglected, price and wage increases may actually be stronger with the R-M policy than with the Keynesian strategy for full employment (see the shifts in the supply curves in figures 3 and 4).<sup>13</sup> And Hansen still neglected the fact that ALMP measures are strategic in the R-M explanation for why a reduction in aggregate demand through restrictive macroeconomic policy would result in lower production, employment and profit margins – these measures will prevent wages from

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<sup>12</sup> In a footnote, Hansen admitted that the assumption of homogenous labor limited his description of the R-M model: "It is obvious that for Rehn and Meidner the measures for bringing about this homogeneity (matching the supply of and demand for labour) to a large extent coincide with the measures for reducing the share of total profit in the national income." See Hansen 1958 [1955], 369 n. 18.

<sup>13</sup> Hansen considered the case where public employment may lead to an upward pressure on wages in the private sector calling forth a restrictive fiscal or monetary policy to maintain price stability (Hansen [1955] 1958, 248-49). But he did not associate this case with the R-M model.

fully adjusting to falling prices. The wage-rigidity feature of the ALMP programs was hidden by Hansen's assumption of constant product prices in the short run. Rehn and Meidner did not describe the mechanism behind a fall in prices when governments used indirect taxes to reduce aggregate demand. To confirm their view, the price-reducing effect of the increase in marginal productivity when production falls (see the assumption of declining marginal productivities) must exceed the price-increasing effect of indirect taxes per se.

Second, Hansen's assumption of constant prices obscured the fact that a reduction in consumer demand is the direct aim of a restrictive fiscal policy in the R-M model. In his presentation of the model, Hansen focused on the cost aspect of higher indirect taxes (see also Hansen, 1951, introduction xiii, 180-81, 241-42). He maintained that indirect taxes will reduce product supply since firms cannot pass on (higher) indirect taxes to consumers when prices are constant. His assumption of constant prices in the section on the R-M policy excluded the possibility that indirect taxes would shift the consumption function downward through a negative wealth effect; Hansen included wealth effects in his private consumption function in other sections, for example in one where he criticized, by reference to Modigliani, Keynes' consumption function in the *General Theory* (Hansen [1955] 1958, 157-59, 162-65, 262-63).<sup>14</sup> In his analysis of the case where full employment is attained by the ALMP measures of the original R-M model, Hansen took it for granted that indirect taxes reducing product supply in the private sector

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<sup>14</sup> Rehn and Meidner did not explore the mechanism behind a relationship between indirect taxes and aggregate demand. The references in Rehn's writings and the 1951 LO report to the need for a tax policy aimed at reducing the purchasing power indicate that there were some fallacies in his analysis on this point (see Rehn [1948] 1952, 34-49; LO [1951] 1953, 92-93).

(see the assumption of constant prices) must be complemented with higher *direct* taxes (or an increase in the rate of interest). Here the aim of direct taxes is to reduce product demand (Hansen [1955] 1958, 372).

Third, Hansen's assumption of constant product prices excluded the possibility that marginal employment subsidies could stimulate employment by price reductions. Rehn's later analysis of marginal employment subsidies rested on the hope that subsidized firms would reduce prices. He assumed that product markets were perfectly competitive or that firms based their mark-ups on marginal costs. Expansionary macroeconomic policy measures were possible complements to employment subsidies in Rehn's program (especially in a recession), not a necessary condition for full employment with these subsidies as in Hansen's analysis (Rehn 1982, 1, 18, 26-27 and 1987, 71-72). Hansen's assumption of constant product prices excluded the possibility that supply-side phenomena (such as marginal employment subsidies) could affect aggregate demand by endogenous changes in the rate of interest. The possibility of endogenous changes in the interest rate is also excluded in the sections of Hansen ([1955] 1958) where prices are flexible (see Hansen's ignorance of the IS-LM model). However, a reference to endogenous changes in capital markets was also missing in contemporary works by Rehn and Meidner.

Fourth, Hansen's explanation of a positive relationship between actual profits (independent variable) and nominal wages did not coincide with that of Rehn and Meidner. Hansen emphasized that higher profits will prompt higher wage claims through

wage earners' (and their unions') care for functional income distribution. Some ambiguities in Rehn's writings before the 1951 LO report provided room for Hansen's interpretation (see Rehn [1948] 1952a, 31). But Hansen concealed Rehn and Meidner's main hypothesis in the 1951 LO report, and also in their previous works, that managers (and owners), not wage earners, are the initiators of wage increases when profits are high. In the R-M model, high profits will unleash extensive wage drift, primarily by making labor scarcer.<sup>15</sup> In fact, a reduction in profits is necessary to prevent the R-M strategy for full employment from engendering a higher wage drift than a Keynesian policy (see the wage-increasing role of ALMP measures).

The lack of a clear conceptual distinction between average and marginal profits in Rehn's works can be criticized. But it partly reflected a conviction that high average profits would contribute to wage drift. Larger financial endowments may increase the capability of firms to make investments and of non-investing firms to keep indispensable personnel who threaten to quit, thus increasing the reservation wages for dynamic firms. In both cases, higher profits will result in wage drift by contributing to labor scarcity.<sup>16</sup> Hansen blocked these explanations for a positive relationship between profits and wages by the assumptions that investments are given and wages are only a variable cost.

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<sup>15</sup> Hansen was less negative to wage drift than Rehn and Meidner. He claimed that even market-conditioned wage drift is compatible with full employment and price stability in the case of (average) productivity increases (Hansen ([1955] 1958), 342-43 and 369). But Rehn and Meidner underlined that wage drift in *some* industries and firms is inflationary since it will unleash wage-wage-price races.

<sup>16</sup> The crucial role of companies' financial endowments when explaining a positive relationship between average profits and wage drift is not explicit in Rehn and Meidner's works. But it can easily be attributed to the R-M model considering the aim of the model to reduce company saving and Rehn and Meidner's emphasis on firms' financial ability to invest and pay higher wages in their analysis of collective wage negotiations (Rehn [1948] 1952a, 39; Meidner [1948] 1952, 25).

The firm perspective on the relationship between average profits and nominal wages is central in the R-M model. In contrast, in Hansen ([1955] 1958), this relationship reflects the interests of wage earners. Hansen argued that the R-M policy, which assumes that governments accept the profit levels and the functional income distribution considered to be adequate by workers, is only one of many possible ways of combining full employment with price stability. By determining the wage options for a fully centralized trade-union movement, economic-policy programs other than the Rehn-Meidner policy can be equally successful. In Hansen ([1955] 1958), the central worker organization is allowed to choose between different macroeconomic policy combinations that satisfy its priorities best given the goals of economic policy. In opposition to the R-M policy, the government can, for example, prefer, and also successively implement, a strategy of high profits to stimulate firms' self-financing capacity. A specific combination of direct and indirect taxes (and interest rates) can force the centralized trade union to accept wage increases which are compatible with the chosen profit strategy. At the same time, several ways of implementing the strategy provides opportunities for the central trade union to opt for the "least bad" outcome, for example in terms of its equity concern (Hansen [1955] 1958, 375-76). Hansen shared Rehn and Meidner's conviction that the unemployment-inflation dilemma could be solved, but he claimed that the R-M model was not the only way to do this. A Keynesian strategy for stabilizing the economy can be as successful as an R-M strategy and also preferable on other grounds.<sup>17</sup>

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<sup>17</sup> Already in his dissertation did Hansen suggest policies other than the "red" R-M policy to achieve an equilibrium in both product and labor markets (see Hansen 1951, 132-33).

Hansen's vision for rational economic policy-making was difficult to realize. In particular, if the relationship between profits and wages reflects variations in firms' capacity to compete for scarce labor, not the psychology of wage earners, Hansen's stabilization policy model must assume a highly centralized employer organization, thus not only a highly centralized trade union movement. Without a complete centralization of labor markets, a policy of high profits aimed at increasing firms' self-financing ability might lead to a struggle for scarce labor, thus to wage races *between firms* as suggested by Rehn and Meidner. From an R-M angle, it is easy to refute Hansen's thesis that "For the employers, a centralization of the kind which is appropriate for the workers is not absolutely necessary" (Hansen [1955] 1958, 364).

Rehn and Meidner were convinced that the Keynesian strategy to achieve full employment would not only be more inflationary than their alternative but would also, in due course, start a process that brought the economy back to unemployment and lower GDP. The two LO economists emphasized that high aggregate demand would harm production and employment by leading to large wage drift, wage-wage-price races and reductions in productivity through production distortions (disorganization problems, absenteeism, etc) having e.g. a negative effect on international price competitiveness (Meidner ([1948] 1952, 22-23, 27; Rehn [1948] 1952a, 35-36; LO, [1951] 1953, 81-82). Hansen actually considered all these consequences for wages and productivity of high aggregate demand; he e.g. referred to Meidner's dissertation from 1954 analyzing the negative productivity effects at "overfull employment" (Hansen [1955] 1958, 343-44). And Hansen's macroeconomic model for an open country (especially when exports and



imports are determined by the real exchange rate) can be used to show that profit-induced wage drift, possibly in combination with domestic wage-wage races and shrinking productivity, can reduce foreign demand (cf. Hansen ([1955] 1958, 413-14). But Hansen ([1955] 1958) expressed a strong belief in the possibility of rational policy makers and centralized trade unions to control wage increases induced by high profits (see above). Furthermore, when exploring the risk that high aggregate demand would cause production distortions, Hansen did not emphasize, as did Rehn and Meidner, that employment and production in the private sector are higher with a Keynesian strategy than with the R-M model (excluding marginal employment subsidies). In fact, by doubting the possibility of maintaining full employment by expansionary macroeconomic policies and by giving priority to measures increasing labor-market flexibility, Rehn and Meidner's economic-policy program actually seems more modern than Hansen's economic policy in the light of later theoretical developments.

The conclusion to be drawn from this subsection is that Hansen's account of the R-M model was more representative and elaborate in his work on fiscal policy in the mid-1950s than in his dissertation at the beginning of the decade. Hansen now introduced, and also accepted, the ideas that extensive wage drift is a threat to price stability, e.g. by inducing wage-wage spirals, and that high actual profits may foster wage inflation. But Hansen disregarded Rehn and Meidner's synthesis of these ideas – high profits can induce substantial wage drift, especially by aggravating the shortage of (skilled) labor. More basically, Hansen still ignored the complex role of ALMP in the R-M model. He was now aware of the fact that ALMP measures (including marginal employment

subsidies) are conditional for full employment and necessary to counteract wage drift in some sectors. But the intention behind the ALMP programs of the original R-M model was also to increase nominal wages. By contributing to wage rigidity, these programs were e.g. conditional for the effects of a restrictive fiscal policy on production, unemployment and functional income distribution. Despite its merits in terms of clarity and precision, Hansen's account of Rehn and Meidner's stabilization policy was still incomplete.

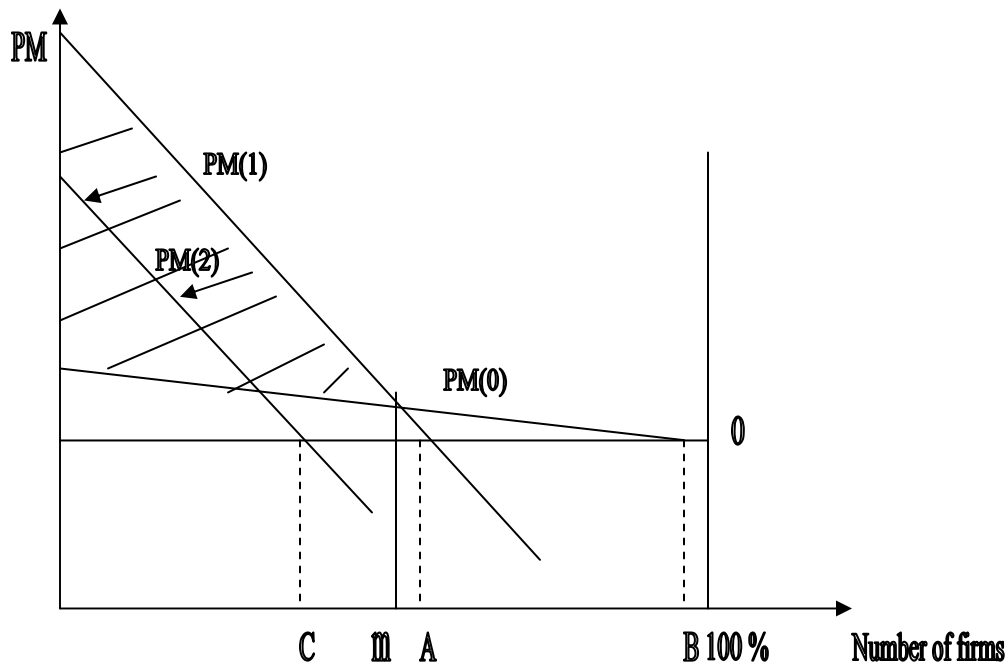
#### 4.2. Hansen and the Wage Policy of Solidarity

Hansen's argument against a wage policy of solidarity, and also against complementary mobility-enhancing ALMP measures, was a conventional one – the policy denies people the opportunity to remain in a specific industry, firm or region by accepting lower wage increases (Hansen 1961, 124-25). Thus, he downplayed the R-M argument that wage pressure on inefficient firms and industries would speed up structural change and enforce productivity increases if firm survival were at stake. Hansen's theory of the wage policy of solidarity in Hansen ([1955] 1958) is more interesting and also more troublesome for Rehn and Meidner than his criticism of a wage policy preventing wage cuts in less profitable firms and plants.

Figure 7 presents Rehn and Meidner's view of the wage policy of solidarity. We assume there to be no inputs other than labor in the economy and that prices are given and the same for all firms. Labor is assumed to be homogenous in the sense that all wage earners have the same skill. Further, we will assume that firms have different productivity levels,

for example through embodied technological progress. The number of firms is assumed to be constant.

Figure 7: Wage policy of solidarity, profit margins and firm exit in the Rehn-Meidner model



The firms are listed by their profit margins (PM), i.e. the ratio between sales values and wage bills. In the interest of simplicity, it is assumed that the profit-margin structure can be described in linear terms. The extent of solidarity wages is shown by the angle of the profit-margin lines. The flatter PM(0) line shows profit margins in a state where wages are more in accordance with firms' ability to pay, which is determined by their productivity levels. Thus, there is a weak propensity (or opportunity) for wage policy of solidarity or a weak tendency to uniform wages through labor mobility between firms. The steeper PM(1) line shows profit margins if central wage negotiators more closely

follow the principle of solidarity or if wages are more uniform because of better functioning labor markets. The medium firm (m) pays the same wage in the two cases.

The dotted lines in figure 7 show the number of firms above the point of break-even (0) where prices are equal to unit wage costs. A smaller number of firms will survive with solidarity wages than with wages that are more adjusted to productivity differences between firms (compare A and B in the figure). Furthermore, firms with higher productivity levels than the medium ones have larger profit margins after the introduction of a wage policy of solidarity; see the shadowed area in the figure. (We here assume labor markets to be equally flexible in the two cases.)

Rehn and Meidner underlined the need for a medium-term policy squeezing profits in general, including firms and industries favored by a wage policy of solidarity. In figure 7, the R-M stabilization policy, resulting in a reduction in the price-wage ratio for all firms, shifts the profit-margin line downward from PM(1) to PM(2). More firms will fall below the 0 line, the point of break-even, unless they have the opportunity to increase productivity (see C in the figure). The profit-squeezing policy will also reduce intra-marginal profits for the surviving firms (the shadowed area in the figure will shrink). Rehn and Meidner's ambition behind the general squeeze in profits was thus to put a strong pressure on low-efficient firms given the wage policy of solidarity and reduce the room for wage increases in firms favored by this wage policy.

Rehn and Meidner admitted that there are restrictions on a policy of squeezing profits in general, both in the short run (especially during recessions) and in the long run. Thus, this policy left room for wage increases in firms with the highest productivity levels; accordingly the shadowed area in the figure is still significant. The crucial question is how wage increases can be prevented in dynamic industries and firms characterized by high average profits (and probably also by positive or high marginal profits). High intra-marginal profits can challenge the principle of uniform wages for equal jobs. This challenge is obvious in a theory emphasizing a positive relationship between average profits and wages. Rehn and Meidner seemed inconsistent when criticizing defenders of income policy for ignoring endogenous forces behind wage changes (profits in this case) while simultaneously referring to the possibility of affecting the wage structure by the norm of solidarity.

According to the R-M view, Hansen argued, profits must be the same in all industries to avoid inflation. High average profits in some industries would provoke trade unions governed by a concern for profits to struggle for higher wages leading to disturbances in the wage structure (Hansen [1955] 1958, 369). With this interpretation of the R-M model, the wage policy of solidarity will not result in equal wages for equal jobs and a widening of profit differentials between industries and between firms. Instead, solidarity wages will raise the wage floor in the economy. Before Hansen, Gustav Cassel and Gösta Bagge had adopted a similar wage-floor approach to the wage policy of solidarity (see Cassel 1902; Bagge 1917 and 1931; Erixon, 2011, 96-97 and 107 n. 54). In contrast, Rehn and

Meidner always insisted that the wage policy of solidarity provided a wage premium to the most profitable firms and industries.

The 1951 LO report and Rehn in particular stressed that mobility-enhancing ALMP measures are necessary for realizing the wage policy of solidarity (Rehn [1950] 1952a, 45-47 and 1953, 283; LO [1951] 1953, 96-97). Rehn and Meidner explicitly assumed that mobility-enhancing ALMP measures would not only sustain but also reinforce the difference in intra-marginal profits between industries and between firms. Hansen stressed the salience of ALMP programs for preventing (market-conditioned) wage drift in dynamic industries (see the preceding subsection). But he did not refer to these programs when analyzing the profit structure of the R-M model. Because of the positive relationship between average profits and *wage drift*, ALMP measures are even more critical in the R-M model than what is suggested by Hansen. A more radical wage policy of solidarity would lead to larger intra-marginal profits which will stimulate investments if self-financing is important. ALMP measures are necessary to prevent that higher labor demand will result in an extensive market-conditioned (asymmetric) wage drift challenging the wage policy of solidarity.

Hansen seemed unconscious of the fact that a tendency to uniform profits was a break with rather than a component of the R-M model. Yet, he highlighted the difficulties in implementing the wage policy of solidarity when wages are a function of profits as suggested by Rehn and Meidner. Structural shocks leading to higher average and marginal profits in some industries and firms are inevitable in a dynamic economy. A

positive relationship between average profits and wages is then a challenge to the wage policy of solidarity notwithstanding if we emphasize the incentives of wage earners as Hansen or the incentives of firms as Rehn and Meidner. Structural shocks will also pose a threat to price stability if an extensive wage drift leads to wage-wage races as suggested by Rehn, Meidner and Hansen alike.

Furthermore, Rehn and Meidner never explained why profit differentials between firms and between industries created by wages of solidarity and bolstered by mobility-promoting ALMP measures could be maintained in the (very) long run. High average profits in some sectors are reduced if profitable technologies are spread and firms (new or established) have the opportunity to enter profitable markets. Long-run profits are even zero in competitive product markets. Hansen's conclusion that profits become uniform in the R-M model seems valid after all even if ALMP measures are numerous and effective. However, the tendency to profit equalization in the long run is not a real challenge to the R-M model. Rehn and Meidner argued for profit differentials instead of wage differentials and high profits in general as incentives for structural change and economic growth. Uniform profits are not necessary conditions for or inevitable outcomes of the R-M policy in the long run.

To summarize, Hansen asserted that profit differentials between firms and between industries because of the wage policy of solidarity would be eliminated by the R-M relationship between profits and wages. This threat to a policy for uniform wages and non-uniform profits is met by a mobility-enhancing ALMP measure in the R-M model.

Since higher average profits will primarily unleash more wage drift in the R-M theory, ALMP measures are even more important in the R-M model than what was suggested by Hansen. But Hansen shed some light on the existence of an internal conflict in a policy program advocating solidarity wages while simultaneously relying on a theory about a positive relationship between average profits and nominal wages. The R-M wage policy of solidarity is undoubtedly challenged by perpetual structural changes in the business sector. Meidner was conscious of the risk of a substantial wage drift in some sectors when trade unions are following the principle of wage solidarity. A basic argument for his proposal of collective wage earner funds in the mid-1970s was to support the wage policy of solidarity by “expropriating” excess profits in some firms and industries (Meidner [1976] 1978, 33-34).

## **5. The Hansen-Rehn Article**

In their joint work, Hansen and Rehn considered only one aspect of the R-M model – the determination of wage drift. Their ambition was to econometrically separate the impact of profits and labor scarcity on wage drift in Swedish manufacturing. Lundberg had criticized Rehn for obscuring the fact that wage increases might be explained by tight labor-market conditions rather than by high average profits (cf. Lundberg [1950] 1952, 60, 69-70 and [1953] 1957, 256-57, 261). Lundberg took the full consequences of his view of wage inflation by recommending “some degrees less of full employment” (Lundberg [1950] 1952, 70). Hansen and Rehn’s study actually demonstrated that labor scarcity was more important than profits for wage drift in Swedish manufacturing. Their results were later verified by other aggregate studies of Swedish wage formation (see the



literature survey in Erixon 2000, 56-58). Parenthetically, Rehn and Meidner did not deny that wages are mainly determined by market forces. But they maintained that, by being associated with lower average profits, their policy for full employment would result in lower wage drift (and also higher productivity growth) than a Keynesian strategy. Anyway, we will focus on the theoretical section in Hansen and Rehn (1956) exploring the relation between profits and labor scarcity that was missing in Hansen's and imprecise in Rehn's earlier analysis of wage drift. Indisputably, Hansen was the author of this theoretical section.

Hansen and Rehn's study of Swedish wage drift was based on the marginal productivity theory. Wages were determined by the product of (expected) producer prices and (expected) physical marginal productivity and by labor supply. The economy is one of perfectly competitive product markets or of exogenous (and flexible) prices. But Hansen and Rehn adjusted the basic marginal productivity theory for the degree of monopoly which they assumed to be constant. They further assumed that marginal productivity is declining, guaranteeing negatively sloped labor-demand curves, and that labor supply is completely inelastic. With all these assumptions, the theory in Hansen and Rehn (1956) can be represented by figure 1 (see Chapter 3 above). A higher product price or an increase in physical marginal productivity will shift labor-demand outward from  $LD(0)$  to  $LD(1)$ . The equilibrium wage rate will then be  $W(1)$  instead of  $W(0)$ . Total marginal profits from hiring more labor at the initial wage  $W(0)$  are shown by the shadowed area (see also Erixon 2000, 22-23).

On basis of the notion of total marginal profits, Hansen made a distinction between profits and labor scarcity as a source of wage drift. He divided total marginal profits from hiring additional labor into an excess-profit and an excess-demand effect. Hansen assumed that the slope of the labor demand curve might change. As a consequence, excess profits and excess demand can even move in opposite directions (Hansen and Rehn 1956, 93-94).

Hansen's separation between excess profits and excess demand within the realm of marginal (labor) productivity was a doubtful one.<sup>18</sup> He could preferably have separated the profit effect on wage drift by disentangling the intra-marginal profits on product markets as in Hansen (1958 [1955]). We can only speculate on why Hansen chose the marginal productivity framework, and thus the overall notion of marginal profits, to shed some light on the separate effects of profits and labor scarcity on wage drift. One possible explanation is that Hansen implicitly assumed that intra-marginal profits are zero in a long-run equilibrium in competitive product markets, for example as an effect of free entry. In this case, the marginal cost curve is perfectly elastic and thus a horizontal line. Whatever the reason, Hansen's theoretical approach to his wage study together with Rehn was a scientific failure by a brilliant economist. What is more, the practical difficulties of distinguishing between the excess-demand and the excess-profit effects on wage drift are

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<sup>18</sup> It is difficult to see how a change in the slope of the demand curve on the labor market can move excess demand and excess profits in different directions if we still assume that marginal productivity is diminishing. Rehn and Hansen also referred to the real cases of wage rigidity downward and labor rationing (Hansen and Rehn 1956, 95-96). In the case of wage rigidity, nominal wages will fall when the labor demand curve shifts downward because of an excess-demand effect while the marginal excess-profit effect is absent. In the case of rationing, the excess-demand effect is absent while the excess-profit effect is positive. However, it seems strange to assume any effect at all on nominal wages in the case of wage rigidity and to exclude an excess-demand effect in the case of labor rationing.

overwhelming. Measurement problems actually forced Hansen and Rehn to regard wage drift as a function of average rather than marginal (excess) profits (Hansen and Rehn 1956, 104).

The arguments in Rehn and Hansen, 1956 for making a theoretical separation between profit and labor-market conditions on the basis of a marginal notion when determining wage drift were not only disputable in themselves. They also excluded an analysis of the impact of average profits on wage drift, directly or through the repercussions on labor-market conditions. This is not to say that Hansen and Rehn ignored the fact that actual profit margins can be an important driving force behind wage drift in and of itself. In contrast to Hansen (1958 [1955], Hansen and Rehn (1956) suggested a positive relation between average profits and *wage drift*. Hansen and Rehn e.g. referred to a relationship between actual profits and X-inefficient wages (Rehn and Hansen 1956, 89). They also analyzed a relationship between actual profits and nominal wages emphasized in the modern wage-efficiency theory and also in Hansen (1958 [1955]) – employees are provoked by high profits on equity grounds. The hypothesis by Hansen and Rehn that wages will increase as an “institutional habit” after an increase in average productivity has a direct correspondence in the modern wage theory about rent sharing.<sup>19</sup>

But the analysis of the relationship between average profits and wage drift in Hansen and Rehn (1956) was of an ad hoc character in relation to the marginal productivity theory.

And none of the explanations for a positive relationship between average profits and

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<sup>19</sup> However, Hansen and Rehn preferred to consider changes in average productivity as a separate explanation for wage drift beside profits and labor scarcity. They correctly argued that these changes will fall outside traditional demand and supply theory (Hansen and Rehn, 89-90, 96-97).

wage drift assumed in accordance with the R-M model that higher actual profits will enhance *market-conditioned* wage drift. This possibility was excluded by Hansen and Rehn's assumption that all labor is variable (see also Hansen, 1951) but also by their partial (dis-)equilibrium approach. By neglecting any interdependencies among labor, product and capital markets, Hansen and Rehn left no room for a hypothesis that higher profits will intensify the competition among investing companies for scarce labor due to the importance of retained earnings for investments when capital markets are imperfect. In addition, Hansen and Rehn made no room for mutual relationships between wage drift and the "independent" variables. Accordingly, Hansen (and Rehn) did not only ignore the fact that wage drift may affect producer prices (see Hansen and Rehn 1956, 98) but also that the positive effects on wage drift of increasing labor scarcity are mitigated by the associated decline in average profits. This simultaneous relation among ALMP measures, profits and wage drift is central in the R-M analysis of the medium term. Furthermore, Hansen and Rehn (1956) did not focus on the importance of mobility-enhancing ALMP measures for keeping down wage drift in dynamic industries and labor markets.

To recapitulate the arguments of this section, in his article together with Rehn, Hansen made a clear distinction, as in his earlier works on the R-M model, between the effects of marginal and average profits on wages. Furthermore, by claiming that high average profits may stimulate wage drift, the Hansen-Rehn article came closer to the R-M ideas than Hansen's two preceding surveys. But by the distinction between profits and labor-market conditions within a theoretical framework where marginal profits are the all-

embracing concept, Hansen was still unable to envisage the relationship between average profits and labor scarcity when wage drift is determined in the R-M model.

The main, though largely unnoticed, contribution by Hansen and Rehn was that they anticipated the Beveridge-curve analysis of vacancies and unemployment (cf. Rodenburg 2011, 126-27) and the endeavors to formulate a microeconomic theory for the Phillips curve. Hansen and Rehn estimated total excess demand for labor as the weighted sum of excess demand and excess supply in different labor markets. Furthermore, excess demand (the degree of labor scarcity) in different branches of manufacturing was determined by the difference between the number of vacancies and the number of unemployed individuals (Hansen and Rehn 1956, 105-06). Hansen thought later that this representation of a heterogeneous labor market was more in line with the neoclassical demand and supply theory (and also “common sense”) than the index constructed by J.C.R. Dow and Louise Dicks-Mireaux in the late 1950s (Hansen 1970b, 7-8). Anyway, by modeling a labor market where both excess demand and excess supply conditions exist (even within industries), Hansen and Rehn (1956) and then Hansen (1970b) demonstrated that the R-M idea about asymmetric wage drift had a profound impact on Hansen’s thinking.

## **6. Conclusions**

This paper has focused on three works by Bent Hansen in the 1950s where he presented and evaluated the economic policy and theory of the Swedish model – the Rehn-Meidner model. Hansen was particularly concerned with the stabilization-policy aspect of the R-M

model and the model's underlying theory about wages and inflation. In alignment with Hicks' *Value and Capital* and works by Lindahl, Hansen analyzed the R-M model within the framework of an aggregate demand-supply (dis-)equilibrium model. In his dissertation, Hansen gave a somewhat distorted picture of the R-M model which could partly be blamed on Rehn and Meidner's (and also Lundberg's) preliminary presentation in the late 1940s. But he correctly pinpointed the central role of fiscal austerity in the R-M model and the model's aim at reducing profits' share of national income. Through his access to the 1951 LO report, post-doc research and participation in the debate on Swedish economic policy, Hansen improved his knowledge of the R-M model. In his publications after the dissertation, Hansen took account of the R-M idea that high wages are stimulated by high average profits. In his dissertation, Hansen had questioned the generality of the theory of inflation underlying Rehn and Meidner's policy. In his subsequent work on fiscal policy, Hansen primarily objected to the generality of their policy program for squeezing profits – the unemployment-inflation dilemma can be solved in other ways than by adhering to the R-M guidelines.

But there were fallacies in Hansen's interpretation of the R-M model even in his article together with Rehn. Hansen never succeeded in reproducing the idea in Rehn and Meidner's writings that high actual profits will induce extensive wage drift by increasing the degree of labor scarcity. Rehn and Meidner's wage theory questioned the fact that profits and labor-market conditions are separate determinants of wage drift as in Hansen's works including his study together with Rehn. Therefore, Hansen obscured the central R-M idea that wage increases in a situation with high average profits are induced

by firms and, fundamentally, by higher labor demand (given labor supply), not by wage-earners' concern for fairness.

In addition, Hansen never recognized the full range of the complementarities in the R-M model. The policy means were meant to not only cope with the negative consequences of other means but also to satisfy more than one goal of economic policy. For example, active labor market policy should contribute to full employment, low inflation, growth as well as to equity. What is more, there are several interactions between the policy instruments even if we, as Hansen, restrict ourselves to the objectives of price stability and full employment. In the R-M model, active labor-market policy programs aimed at achieving full employment are e.g. conditional for the effects of tight fiscal policy on production, unemployment and profit margins.

There was a clear gap between Hansen's deductive and stylized presentation of the R-M model and Rehn and Meidner's own analysis. Hansen's theory was based on a large number of assumptions that blocked a plausible interpretation of the R-M theory. Rehn and Meidner's view of wage formation and inflation was largely concealed by Hansen's assumptions of given investments, variable labor, preferences for real wages (relative-wage preferences are conditional for wage-wage races), firm efficiency (excluding X-inefficient wages), constant prices in the short run, perfect capital markets (excluding the importance of retained earnings for investments), perfect product markets (excluding positive profits in the long run), perfect labor markets (excluding wage floors and secondary wage-wage races) and homogenous labor. Accordingly, Hansen's endeavors to

identify the real mechanisms in the R-M model were often of an ad-hoc character. At the same time, Rehn's tentative and open analysis occasionally left room for misunderstandings and various interpretations.

Influenced by economists in the first generation of the Stockholm School of Economics, Rehn, Meidner and Hansen all had a strong belief in state interventionism and social engineering to stabilize the economy. But they worked in different, though partly overlapping, social contexts; Hansen in the academic profession, Meidner and Rehn in those labor-market and political organizations that came to form Swedish economic policy in the early postwar period. Furthermore, their personalities and comparative advantages as economists differed. Rehn, who was responsible for the stabilization policy of the R-M model, was in contrast to Hansen an "appreciative" rather than a "formal" economist using Richard Nelson's classification (Nelson 1998, 500, 504-06, 516). The term "creative impatience" has been used, paraphrasing Schumpeter's notion, to characterize Rehn as an innovative economist giving priority to the development of new ideas about economic policy in close contact with the decision-making process at the expense of time-consuming theoretical and empirical work (Erixon 1997, 644). Rehn's inductive and intuitive analysis hardly satisfied Hansen's preference for explicit *a priori* models in order to avoid "inaccurate, ambiguous, or just wishful thinking" (Hansen [1955] 1958, the introduction, x).

But Nelson maintains that it is appreciative scholars who are largely responsible for new theoretical perspectives in economics. Notwithstanding the small number of professional



economists in Sweden in the early postwar period and their regular participation in the economic-policy debate there was a remarkable one-way transmission of ideas between Rehn and Hansen – Hansen was influenced by Rehn but not the other way round (cf. Erixon 2011, 102-06). The conclusion that Rehn was an economist who created insights and Hansen an economist who formalized insights is near at hand. This assessment may be unfair to Hansen, especially considering his path-breaking work on the theory of fiscal policy. It is easy to support Nelson's standpoint that both appreciative and formal theorizing are necessary for scientific progress. But our survey of Hansen's analysis of the theory of the Swedish model has exemplified the overwhelming difficulties in combining the advantages of the two kinds of scholarship in economics even when their representatives work together.

## References

- Arbetarrörelsens efterkrigsprogram (1944). *De 27 punkterna med motivering (The Postwar Programme of the Labour Movement – the 27 Items with Arguments)*. Stockholm: Victor Pettersons Bokindustriaktiebolag.
- Bagge, G. (1917). *Arbetslönens reglering genom sammanslutningar (The Regulation of Wages Through Organization)*. Stockholm: AB Nordiska Bokhandeln.
- \_\_\_\_\_. (1931). *Orsaker till arbetslöshet (The Causes of Unemployment)*. Supplement 1 to the Committee on Unemployment, SOU 1931:21. Norstedts Förlag: Stockholm.
- Cassel, G. (1902). *Socialpolitik (Social Policy)*. Stockholm: Hugo Gebers Förlag.
- Erixon, L. 1997. The Father of the Swedish Model - in Memory of Gösta Rehn (1913-96). *Journal of Economic and Industrial Democracy* 18.4:635-50.
- \_\_\_\_\_. 2000. *The 'Third Way' Revisited. A Revaluation of the Swedish Model in the Light of Modern Economics*. Stockholm: Trade Union Institute for Economic Research (FIEF).
- \_\_\_\_\_. 2008. The Swedish Third Way: an Assessment of the Performance and Validity of the Rehn-Meidner Model. *Cambridge Journal of Economics* 32.3:367-93.

\_\_\_\_\_. 2011. A Social Innovation or a Product of Its Time? The Rehn-Meidner Model's Relation to Contemporary Economics and the Stockholm School. *The European Journal of the History of Economic Thought* 18.1:85-123.

Hansen, B. (1951). *A Study in the Theory of Inflation*. London: George Allen & Unwin.

\_\_\_\_\_. [1955] 1958. *The Economic Theory of Fiscal Policy*. London: George Allen & Unwin. First published in Swedish as a report to *Penningvärdeundersökningen*.

\_\_\_\_\_. 1961. Comment. In *Nationalekonomiska föreningens förhandlingar (Proceedings of the Swedish Economic Association)*, fourth meeting. Stockholm: Swedish Economic Association.

\_\_\_\_\_. 1970a. *A Survey of General Equilibrium Systems*. New York: McGraw-Hill.

\_\_\_\_\_. 1970b. Excess Demand, Unemployment, Vacancies, and Wages. *The Quarterly Journal of Economics* 84.1:1-23.

Hansen, B. and G. Rehn 1956. On Wage-Drift. A Problem of Money-Wage Dynamics. In *25 Economic Essays in Honour of Erik Lindahl*, 87-138. Stockholm: Ekonomisk Tidskrift.

Hicks, J. R. [1946] 1974. *Value and Capital – An Inquiry into Some Fundamental Principles of Economic Theory*, Second Edition. Oxford: Clarendon Press.

LO (1953) [1951]. *Trade Unions and Full Employment*. Report to the 1951 LO Congress. Stockholm: The Swedish Confederation of Trade Unions (LO). First published in Swedish in 1951.

Lundberg, E. [1950] 1952. A Critique of Rehn's Approach. In *Wages Policy Under Full Employment*, edited by R. Turvey, 55-71. London: William Hodge and Company. Revised version of Lönepolitik under full sysselsättning. *Ekonomisk Tidskrift*, 1950, 52.1:44-61.

\_\_\_\_\_. [1953] 1957. *Business Cycles and Economic Policy*, London: George Allen & Unwin. Revised English version of *Konjunkturer och ekonomisk politik*. Stockholm: National Institute for Economic Research (Konjunkturinstitutet) and The Industrial Council for Social and Economic Studies (SNS Förlag).

\_\_\_\_\_. 1972. Productivity and Structural Change - a Policy Issue in Sweden. *The Economic Journal* 82.325:465-85.

\_\_\_\_\_. 1985. The Rise and Fall of the Swedish Model. *Journal of Economic Literature* 23.1:1-36.

Matthiessen, L., C.H. Siven, and P. Svedberg. 2007. Bent Hansen. *Ekonomisk Debatt* 35.4:51-63.

Meidner, R. [1948] 1952. The Dilemma of Wages Policy under Full Employment. In *Wages Policy Under Full Employment*, edited by R. Turvey, 16-29. London: William Hodge and Company Ltd.,. Revised version of Lönepolitikens dilemma vid full sysselsättning. *Tiden* 1948 40.9: 464-71.

\_\_\_\_\_. [1976]1978. *Employee Investment Funds. An Approach to Collective Capital Formation*. London: George Allen & Unwin. First published in Swedish in 1976.

\_\_\_\_\_. (1998). Gunnar Myrdal – några reminiscenser och lärdomar (Gunnar Myrdal – Some Reminiscences and Lessons). In *Gunnar Myrdal – Vägvisare*, edited by Ö. Appelqvist and S. Andersson, 13-23. Stockholm: Norstedts Förlag.

\_\_\_\_\_. (2003). Några tankar vid ett seminarium (Some Reflections at a Seminar). In *Den svenska modellens ekonomiska politik. Rehn-Meidnermodellens bakgrund, tillämpning och relevans i det 21:a århundrandet*, edited by L. Erixon, 218-220. Stockholm: Atlas Akademi.

Nelson, R.N. 1998. The Agenda for Growth Theory: a Different Point of View. *Cambridge Journal of Economics* 22.4: 497-520.

Rehn, G. [1948]1952a. The Problem of Stability: an Analysis and Some Policy Proposals. In *Wages Policy Under Full Employment*, edited by R. Turvey, 30-54. London: William Hodge and Company. Revised version of Ekonomisk politik under full sysselsättning. *Tiden* 1948 40.3:135-42.

\_\_\_\_\_. [1950] 1952b. A Reply to Professor Lundberg. In *Wages Policy Under Full Employment*, edited by R. Turvey, 72-9. London: William Hodge and Company. Revised version of Lönepolitiken och fullsysselsättningen. Replik till professor Lundberg. *Ekonomisk Tidskrift* 1950, 52.1:62-7.

\_\_\_\_\_. 1953. Regleringsväsen, finanspolitik och arbetsmarknadsproblem (Regulation, Fiscal Policy and Labour-Market Problems). *Ekonomisk Tidskrift* 55.4:271-90.

\_\_\_\_\_. 1977. Finansministrarna, LO-ekonomerna och arbetsmarknadspolitiken (The Ministers of Finance, LO Economists and Labour Market Policy). In *Ekonomisk debatt och ekonomisk politik - Nationalekonomiska föreningen 100 år*. Stockholm: Norstedts Förlag.

\_\_\_\_\_. 1978. Den förhårdade reformismen är vårt öde (Inveterate Reformism is Our Destiny). *Ekonomisk Debatt* 6.8:571-76.

\_\_\_\_\_. (1982). Anti-Inflationary Expansion Policies (With Special Reference to Marginal Employment Premiums). Report to the Commission of the European Communities, *Occasional Paper No. 4*. Brussels: Commission of the European Communities.

\_\_\_\_\_.1987. State, Economic Policy and Industrial Relations in the 1980s. *Journal of Economic and Industrial Democracy* 8.1:61-79.

Robinson, J. 1937. *Essays in the Theory of Employment*. London: MacMillan & Co.

Rodenburg, P. 2011. The Remarkable Transformation of the UV Curve in Economic Theory. *The European Journal of the History of Economic Thought* 18.1:125-53.

Romer, D. 2006. *Advanced Macroeconomics*, Third Edition. Boston: McGraw Hill.